



Cytokeratin 20

IHC of CK20 on an FFPE Colon Adenocarcinoma Tissue

Description Cytokeratin 20 (CK20) is a 46 kDa intermediate filament protein whose expression is restricted primarily to gastric and intestinal epithelium, urothelium, and Merkel cells. Cytokeratin 20 is a Type I cytokeratin. It is a major cellular protein of mature enterocytes and goblet cells found in the gastric and intestinal mucosa.

CK 20 is expressed in Adenocarcinomas of the colon, stomach, pancreas and biliary system. It is also expressed in Mucinous Ovarian Tumors, Transitional-cell Carcinomas of the urinary tract, and Merkel-cell Carcinomas. Cytokeratin 20 is useful in the differentiation of specific types of simple epithelial cells of the urinary tract and normal and malignantly-transformed epithelia. This antibody is essentially non-reactive in Squamous Cell Carcinomas and Adenocarcinomas of the Breast, Lung, and Endometrium, Non-mucinous Tumors of the Ovary, and Small-cell Carcinomas. This antibody is often used in conjunction with CK7 and other antibodies to distinguish Colon Carcinomas (CK20+) from Ovarian, Pulmonary, and Breast Carcinomas.

Antibody Type	Mouse Monoclonal	Clone	Ks20.8
Isotype	IgG2a/K	Reactivity	Paraffin, Frozen
Localization	Cytoplasmic	Control	Colon Carcinoma, Colon Mucosa, Bladder
Storage	Store at 2°-8°C	Stability	2 years

For long-term storage of the concentrated antibody, it is recommended that aliquots of the antibody be frozen at -20°C in glycerol 50% (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Dilute using an antibody diluent such as ImmunoDetector Protein Block/Antibody Diluent (BSB 0040 and BSB 0041) or ImmunoDNA Background Blocker (BSB 0103-BSB 0107).

Presentation Cytokeratin 20 is a mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

Availability	Catalog No.	Antibody Type	Dilution	Volume/QTY
	BSB 5386	Prediluted	Ready-To-Use	3.0 ml
	BSB 5387	Prediluted	Ready-To-Use	7.0 ml
	BSB 5388	Prediluted	Ready-To-Use	15.0 ml
	BSB 5389	Concentrated	1:250-1:1000	0.1 ml
	BSB 5390	Concentrated	1:250-1:1000	0.5 ml
	BSB 5391	Concentrated	1:250-1:1000	1.0 ml
	BSB 5392	Control Slides		5

Note: For concentrated antibodies, please centrifuge prior to use to ensure recovery of all product.

- References**
1. Moll R, et al. *Am j Pathol.* 1992;427-47
 2. Moll R, et al. *J Cell Biol.* 1990;111:567-580
 3. Moll R, et al. *Cell.* 1982;31:11-24
 4. Nan Ping Wang, et al. *Appl Immuno.* 1995;3(2):99-107

Protocol Suggested protocol on reverse

Recommended Immunohistochemical Protocol

- Pretreatment**
1. Cut and mount 3-4 micron formalin-fixed paraffin-embedded tissues on positive charged slides.
 2. Air dry for 2 hours at 58° C.
 3. Deparaffinize, dehydrate and rehydrate tissues.
 4. Subject tissues to heat epitope retrieval using a suitable retrieval solution such as **ImmunoDNA Retriever with Citrate** (BSB 0020-BSB 0023) or **EDTA** (BSB 0030-BSB 0033).
 5. Any of three heating methods may be used:
 - a. **Electric Pressure Cooker**
Place standoff rack at base of pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high, and incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. **Water Bath Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a water bath set at 95°-99° C. Incubate for 30-60 minutes.
 - c. **Conventional Steamer Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a Steamer, cover and steam for 30-60 minutes.
 6. After heat treatment, transfer slides in **ImmunoDNA Retriever with Citrate** or **EDTA** to room temperature and let stand for 15-20 minutes.
 7. Wash slides with IHC wash buffer or DI water.
 8. Continue IHC staining protocol.

Immunohistochemical Protocol

Step	ImmunoDetector (AP or HRP)	PolyDetector (AP or HRP)
Peroxidase/AP Block	5 minutes	5 minutes
Primary Antibody	30 minutes	45 minutes
Secondary Biotinylated Link	10 minutes	Not Applicable
AP or HRP Label	10 minutes	45 minutes
Substrate-Chromogen	5-10 minutes	10 minutes
Counterstaining	Time varies with counterstain	Time varies with counterstain

